DYNAMICALLY ADJUSTING OPERATION OF ONE OR MORE SENSORS OF A COMPUTER INPUT DEVICE

ABSTRACT OF THE DISCLOSURE

A computer input device controller dynamically adjusts the rate at which an illumination source is activated, and may also adjust the rate at which other optical tracking system components are activated. As the velocity of optical tracking system movement relative to a tracked surface increases, the controller increases the activation rate(s). As the velocity of relative movement decreases, the controller decreases the activation rate(s). Future displacements of a tracking system relative to a tracked surface are also estimated. In particular, relative tracking system/tracked surface velocity is calculated based on a series of images. Relative displacement is then estimated based on the calculated velocity.